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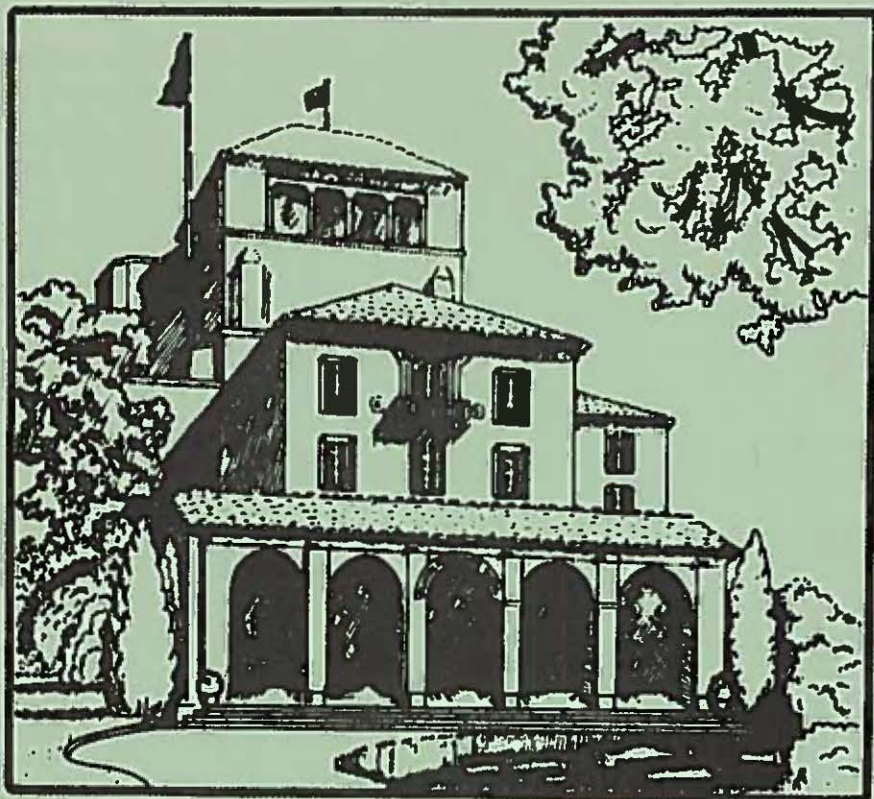
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Naval Postgraduate School

FACULTY BULLETIN

21 August 1967

PROFESSOR BUERGER RETIRES

Newton W. Buerger, Professor of Metallurgy and Materials Science, has been placed on the retired list following twenty-five years of distinguished service to the Naval Postgraduate School.

Professor Buerger received his professional education at Massachusetts Institute of Technology where he was awarded the degree of Doctor of Philosophy in 1940 in the fields of Crystallography and Metallurgy. He became a member of the faculty in 1942 as Lieutenant, USNR, after teaching at M.I.T. and at Queens University, Kingston, Ontario. He continued his teaching career as Associate Professor and Professor of Metallurgy following his release from military service in 1946.

He has acted as Associate Chairman of the Department of Materials Science and Chemistry, has served on numerous faculty committees, and has been instrumental in establishing and maintaining standards of faculty policy at the Postgraduate School. He has had numerous publications in the areas of Crystallography and Geology. He is a Fellow of the Mineralogical Society of America, a member of Sigma Xi, and a member of the Geological Society of America, the American Crystallographic Association, the Geochemical Society, and the American Association of University Professors.

APPOINTMENTS TO THE RESEARCH COUNCIL

Professor E. C. Crittenden, Jr., of the Department of Physics, and Assistant Professor T. Green, III, of the Department of Meteorology and Oceanography, have been appointed to the Postgraduate School Research Council for three-year terms. They will replace Professors P. F. Pucci and J. B. Cowie, whose terms expired this summer. Associate Professor H. A. Titus, Department of Electrical Engineering, as incoming chairman of the Faculty Research Committee, will replace Associate Professor A. W. Cooper as ex-officio member of the Council.

FACULTY PUBLICATIONS

Jung, Glenn H.

Heat transport by ocean currents, in Encyclopedia of Oceanography, Reinhold Publishing Co., New York, 1966, p. 351-356.

Abstract: The role of the oceans is described toward providing the energy transport required by the radiation imbalance in the earth-ocean-atmosphere system, which nevertheless displays a constant meridional temperature gradient. Direct and indirect evaluation techniques are described, and corresponding computations of ocean energy transport are compared.

Fremgen, James M.

Utility and accounting principles, The Accounting Review, Vol. XLII, No. 3, p. 457-467, July 1967.

Abstract: Accounting principles should be decision oriented and facilitate decision making by users of financial statements. Utility can be used as a basis for formulation and evaluation of accounting principles. The historical cost principle and uniformity of accounting principles are tested against this utility criterion. In this context, historical cost is considered to be useless while uniformity has merit.

Kirk, D.E.

Optimization of systems with pulse-width-modulated control. IEEE Transactions on Automatic Control. Vol. AC-12, No. 3, p. 307-309. June 1967.

Abstract: The problem of finding pulse-width-modulated signal which provide optimal control for a specified plant is considered. A set of necessary conditions which must be satisfied by the optimal control is derived using the calculus of variations. A steepest-descent procedure is developed to obtain a numerical solution to the resulting nonlinear two-point boundary value problem. Special features of the numerical procedure are automatic step size adjustment and the generation of a sequence of performance indices which is monotonic.

Layton, Donald M.

Just what is the problem we are trying to solve? In Annals of Reliability and Maintainability - 1967. Sixth Reliability and Maintainability Conference, Cocoa Beach, Florida. Vol. 6, All Systems Group. p. 449-450. Society of Automotive Engineers, 1967.

Abstract: With increased contractual emphasis on Reliability, Maintainability, Safety, et al., there is a tendency to attempt educational programs in depth in all fields. A value of effectiveness analysis should be made to determine the nature and extent of training to be performed by educational institutions and at the industrial level.

PRINCIPAL PROFESSIONAL ACTIVITIES

Associate Professor James B. Cowie, of the Department of Business Administration and Economics represented the Naval Postgraduate School at the Conference on the Role of the Computer in the Education of Military Personnel sponsored by the Military Academy and ICAF at West Point, New York, July 31-August 4. In a paper presented at the Workshop, Professor Cowie described the importance of computers and data processing in a number of our programs and the new facilities to be available in the Computer Facility and the Computer Applications Laboratory.

Professor Allen E. Fuhs of the Department of Aeronautics attended a meeting of the Naval Advanced Ballistic Reentry Systems Advisory Group at the Naval Radiological Defense Laboratory on 26 and 27 July 1967. Professor Fuhs is a member of the Advisory Group which was formed to assist the Special Projects Office. On 23 to 25 August he will chair a session on Energy at the Seventh Biennial Gas Dynamics Symposium. The Symposium will be held from 23 to 25 August at Northwestern University.

Professor Paul F. Pucci of the Department of Mechanical Engineering attended the Heat Transfer Conference held in Seattle August 6-9. The conference was sponsored jointly by the Heat Transfer Divisions of ASME, for which Professor Pucci is Vice Chairman of the Gas Turbine Committee, and the AICE.

NEW NPGS FACULTY

Walter S. Brainerd, Assistant Professor of Mathematics

Professor Brainerd received the Ph.D. degree in computer sciences in 1967 from Purdue University. His research was in generalized finite automata theory and formal languages. From 1958 to 1965, he was an active duty naval officer, serving at the National Security Agency, the Naval Security Group Activity, Bremerhaven, Germany, and the Naval Postgraduate School. He joined the faculty of the Department of Mathematics in July, 1967.

LT Thomas B. Cochran, USNR

LT Cochran joined the faculty of the Department of Physics in July, 1967. He was commissioned in the Naval Reserve and awarded the Bachelor of Engineering degree at Vanderbilt University in 1962. He continued his graduate studies at Vanderbilt, and served for two months at Oak Ridge National Laboratory as a trainee in the Health Physics Division, and worked at Brookhaven National Laboratory for six months as a Guest Junior Research Associate in the Physics Department. He received the Ph.D. degree from Vanderbilt University in August 1967, where his research was in the field of bubble chamber physics.

LTCOL James P. Connolly, II, USMC

LTCOL Connolly entered the U. S. Marine Corps in June 1951, and has served extensively with operating units of the Fleet Marine Forces. In June 1963 he received the M.S. degree in Operations Analysis from the Naval Postgraduate School. Following graduation, he served with the Marine Corps Landing Force Development Center, Quantico, Virginia, where he conducted studies on Marine Corps transportation requirements and was a project officer for high speed amphibian vehicle development. During 1966 to 1967, he was a field advisor with the Vietnam Marine Corps. He joined the faculty of the Defense Management Systems Center in July 1967.

LTJG Leonard W. Deaton, USNR

LTJG Deaton was commissioned an Ensign in the Naval Reserve in June, 1965, through the Reserve Officer Candidate Program. In June, 1967, he received the M.S. degree from the University of Iowa. His major area of study was Mathematical Statistics. He joined the faculty of the Department of Mathematics in June, 1967.

First Lieutenant Daniel W. DeHayes, Jr., U. S. Army Reserve

Lt. DeHayes received the Master of Business Administration degree in 1964 from The Ohio State University, majoring in logistics management. In 1965, he was employed by the Graduate School of Business Administration, Harvard University, where he performed research on business problem case material and a business game. He continued his studies at the Ohio State University where he is completing the Ph.D. degree through research into the transportation carrier selection problem. He joined the faculty of the Navy Management Systems Center in July, 1967.

Toke Jayachandran, Assistant Professor of Mathematics

Professor Jayachandran received the B.A. degree in 1951 from the V. R. College, Nellore, India, where he majored in Mathematics. Between the years 1951 and 1960 he was employed by the Government of Madras and the Reserve Bank of India, Madras. Graduate study in mathematics followed in the United States, and in June, 1967, he received the Ph.D. degree from Case Institute of Technology. His research was in the field of Analysis of Variance. He joined the faculty of the Department of Mathematics in July, 1967.

Ladis D. Kovach, Visiting Professor of Mathematics

Professor Kovach received the Ph.D. degree in Mathematics from Purdue University in 1951. His industrial experience includes twenty years, chiefly in electronics. Since 1957 he has been Professor of Mathematics and Chairman of the Department of Mathematics and Physics at Pepperdine College. He is on leave from that institution and is serving as Visiting Professor of Mathematics at the Postgraduate School until September 1968.

DISTINGUISHED VISITORS

Vice Admiral Hsieh, Commander Amphibious Forces, Chinese Navy, and his party of two Chinese Rear Admirals visited the School on 18 August. Their schedule included a briefing by School officers and a tour of the buildings and grounds.

Lieutenant General Ezio Pistotti, Director of International Military Staff, Italian Army, and his party visited the Navy Management Systems Center on 17 August. They spoke with the faculty on aspects of the Defense Management Systems Course for the NATO Defense College.

CALENDAR OF PROFESSIONAL TRIPS

H. Medwin	8/13-8/19	Denver, Ft. Collins, Colo.	Attend ONR Conf/Workshop on Mathematics of Underwater sound.
H.P. Ecker	8/13-8/16	Washington	Conferences, OSD
R.von Pagenhardt	8/14-8/17	Washington	Curriculum development and consultation, State Department and OSD
R.F. Rinehart	8/16	Palo Alto	Attend the Conference on Peaceful Uses of Space, Stanford University.
R.E. Gaskell	8/17-8/18	Washington	Attend mtg of Directors Visiting Lecturers' Program
R.B. Bomberger	8/19-8/20	San Francisco	Attend 5th Annual Summer Conf on Transactional Analysis
T. Sarpkaya	8/20-8/23	Fort Collins, Colo.	Attend 10th Midwestern Mechanics Conf. on Solid & Fluid Dynamics
T.H. Gawain	8/20-8/23	Los Alamos, New Mexico	Discuss status of research project
A.E. Fuhs	8/22-8/25	Evanston, Ill.	Attend the 7th Gas Dynamics Symposium
		Washington	Visit NavAir and NavOrd in regard to research project
H.A. Hoverland P.W. Zehna	8/22-8/26	Mexico City	Attend TIMS XIV International Conference
A. Carol	8/23-8/25	Boulder, Colo.	Attend annual mtg of Western Economic Assn.
R.F. Rinehart	8/24-8/25	Seattle	Attend Naval Senior Scientists Mtg., Applied Physics Laboratory, University of Washington
R. E. Gaskell	8/24-9/5	Buffalo, N.Y. Toronto, Ont.	Attend mtgs. of Math. Assn. America, American Math. Soc., SIAM

A.W. Cooper	8/25-9/9	Vienna, Austria Prague, Czech.	Attend 8th Int'l Conf. on Ionization Phenomena in Gases
W.F. Koehler	8/28-9/1	San Francisco	Attend seminar for Navy School Administrators
K. Woehler	8/28-9/8	Pt. Mugu	Summer Lecture Series NMC
R.F. Rinehart	8/28-8/31	Toronto, Canada	Represent NPGS at mtg of American Mathematical Society and Natl Register Advisory Committee at University of Toronto
E.A. Erickson	8/28-8/30	Stanford	Attend annual mtg of the American Historical Association
W.M. Tolles	9/4-9/8	Columbus, Ohio	Attend Molecular Spectroscopy Symposium Ohio State University
F.M. Teti	9/5-9/9	Chicago	Attend annual mtg of American Political Science Association